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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/057,969	01/29/2002	Akihiko Takeuchi	00684.003316	2472

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EXAMINER

CHEN, SOPHIA S

ART UNIT	PAPER NUMBER
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2852

DATE MAILED: 09/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/057,969

Applicant(s)

TAKEUCHI ET AL.

Examiner

Sophia S. Chen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 5-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5,6,10,11 and 13-22 is/are rejected.
- 7) ☒ Claim(s) 7-9 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 April 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on July 24, 2003 has been entered.

Drawings

2. The corrected formal drawings were received on April 22, 2003. These drawings are approved.

Allowability Withdrawn

3. The indicated allowability of claims 1, 5, 6, 10, 11, 13-22 is withdrawn in view of the discovered reference(s) to Abe et al, U.S. Pat. No. 6,072,964; Haneda et al., JP 2000-347529; and Sano et al., U.S. Pat. No. 6,014,539. Rejections based on the cited reference(s) follow.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1, 5, 6, 10, 11, 13-15, and 17-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abe et al., U.S. Pat. No. 6,072,964 (cited in previous Form PTO-892), in view of Haneda et al., JP 2000-347529 (cited in previous Form PTO-1449 filed 3/17/03).

Abe et al. discloses an image forming heating apparatus comprising a flexible rotatable member 10 contactable to a recording material P carrying an image t (Figure 2); a back-up member 16a disposed in the rotatable member 10; a pressure roller 30 for forming with the back-up member 16a a nip N with the rotatable member 10 therebetween, the nip N being effective to feed the recording material P, wherein the

rotatable member 10 being deformed to form the nip N (Figures 2, 6 and 7); a limiting member (flange - ring-like member) 23a or 23b; the rotatable member 10 having a metal layer 1 (column 12, lines 12-15); and a coil 18 for generating a magnetic field for inducing eddy currents in the metal layer 1, wherein the image t on the recording material P being heated by heat from the metal layer 1 in which heat is produced by the eddy currents (column 11, lines 52-59 and column 12, lines 25-28).

Abe et al. differs from the instant claimed invention in not disclosing the limiting member (ring-like member) being provided with a surface opposed to (and in contact with) an outer peripheral surface of an end portion of the rotatable member; the outer peripheral surface of the rotatable member including a surface portion which is in contact with the opposed surface of the limiting member (ring-like member) and a surface portion which is out of contact with the opposed surface of the limiting member (ring-like member) by the deformation of the rotatable member; a diameter of the rotatable member to the opposed surface of the limiting member (ring-like member) in a state that the rotatable member is free of deformation is larger than a diameter of the rotatable member to the other peripheral surface of the rotatable member; a holder for rotatably holding the limiting member (ring-like member); and the limiting member (ring-like member) being made of heat-resistive resin material.

Haneda et al. discloses an image heating apparatus comprising a flexible rotatable member 17a; a pressure roller 47a for forming a nip N with the rotatable member 17a (Figure 6); a limiting member 171i (ring-like member) for limiting movement of the rotatable member 17a in a direction of a generating line of the

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rotatable member 17a (paragraph [0069] and Figures 6 and 8); the limiting member (ring-like member) 171i being provided with a surface opposed to an outer peripheral surface of an end portion of the rotatable member 17a (Figure 6); the outer peripheral surface of the rotatable member 17a including a surface portion which is in contact with the opposed surface of the limiting member (ring-like member) 171i and a surface portion which is out of contact with the opposed surface of the limiting member (ring-like member) 171i by the deformation of the rotatable member 17a (Figure 8); the limiting member 171i rotating with the rotatable member 17a by friction at the surface portion which is in contact to the opposed surface of the limiting member 171i (Figures 6 and 8); a diameter of the rotatable member 17a to the opposed surface of the limiting member (ring-like member) 171i in a state that the rotatable member 17a is free of deformation is larger than a diameter of the rotatable member 17a to the other peripheral surface of the rotatable member 17a (Figure 8); a holder B1 (bearings) for rotatably holding the limiting member 171i (Figure 6); the holder B1 being effective to limit movement of the limiting member 171i in the direction of the generating line (inherently because the holder B1 is fixed; paragraph [0062]); and the limiting member 171i being made of heat-resistive resin material (fluororesin; paragraph [0069]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the limiting (ring-like) member as taught by Haneda et al. in place of the limiting member of Abe et al. because of the same functionality (both being flanges) for holding and rotating the rotatable member.

7. Claims 16 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abe et al. in view of Haneda et al. as applied to claims 1 and 17 above, and further in view of Sano et al., U.S. Pat. No. 6,014,539 (cited in previous Form PTO-892).

Abe et al. in view of Haneda et al., as discussed above, differ from the instant claimed invention in not disclosing the back-up member including a heater contacted to an inner peripheral surface of the rotatable member, and wherein the image on the recording material is heated by heat from the heater through the rotatable member.

Sano et al. discloses an image heating apparatus comprising a rotatable member 710; a coil 718 or 23 for generating a magnetic field for inducing eddy currents in a metal layer 701 or 20a (column 4, lines 49-52 and 62-67); a pressure roller 730; and the image T on a recording material 15 being heated by a heater (column 12, lines 49-52).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the heater as taught by Sano et al. in place of the induction heater (coil) of Abe et al. in view of Haneda et al. because of the same functionality for fixing the image on the recording material.

Allowable Subject Matter

8. Claims 7-9 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

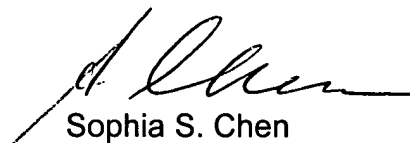
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Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sophia S. Chen whose telephone number is (703) 308-7617. The examiner can normally be reached on M-F (7:00-3:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur Grimley can be reached on (703) 308-1373. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Sophia S. Chen
Primary Examiner
Art Unit 2852

ssc
September 16, 2003